

In The Matter of the Resource Management Act 1991 (“the Act”) And  
In The Matter Plan Change 68 – Prebbleton

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**COMMISSIONER MINUTE 31 MARCH 2022**  
**Response of MURRAY ENGLAND**

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**Introduction to Response – Wastewater**

1. With reference to the Commissioner’s comments defined within the submitted minutes dated 31 March 2022, I provide responses in the following paragraphs to the questions raised, namely:

*“... Mr England is to provide further information regarding the availability of facilities for wastewater conveyance which I understand to involve upgraded pumps and pipeline. If possible, details of the availability and timing on any necessary upgrading steps should be provided. This information is relevant to the question of whether there would be adequate wastewater facilities to accommodate the housing the subject of the proposed change.”*

2. This technical servicing response has been reviewed by Jonathan Cleese from a planning perspective regarding alignment with the other private plan changes in Prebbleton which Mr Cleese is processing on behalf of Council.

**Treatment Capacity – Inner Plains Area**

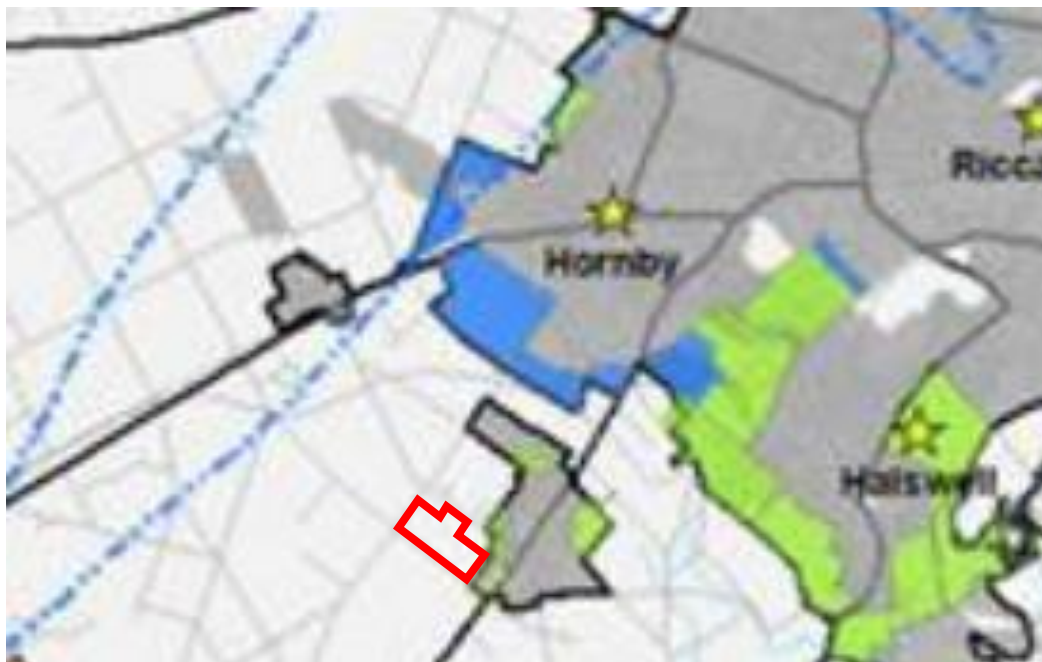
3. As noted in my evidence dated 17 December 2021 the Pines Wastewater Treatment Plant (‘Pines WWTP’) has sufficient capacity to process wastewater generated by PC68, including the other private plan changes in Prebbleton (PC72 and PC79) if they are also approved and proceed. Planned and budgeted infrastructure upgrades to expand the Pines WWTP facility to accommodate growth within the eastern Selwyn District communities to in excess of 120,000 people/population equivalents are sufficient to accommodate both the growth areas anticipated in the Canterbury Regional Policy Statement Map A, and all current private plan changes lodged with Council (which cumulatively equate to some 10,000 additional households over and

above the Map A areas). I am therefore comfortable that there are no short, medium, or long term capacity constraints in terms of wastewater treatment.

#### **Conveyancing Capacity – Prebbleton to Pines WWTP**

4. Modifications are required in the conveyance system to accommodate the projected flows between Prebbleton and the Pines WWTP.
5. There is sufficient conveyance capacity in the pipe/ pump station network to transfer wastewater from Prebbleton to Rolleston to meet current demand generated by already urban zoned areas, modest ongoing infill, and the two retirement villages that are under construction i.e. the areas identified within the outlined urban extents in the CRPS Map A<sup>1</sup>. For clarity, an outline of the proposed PC68 development is presented in Figure 1 (refer red area) to show its proximity to the existing catchment.

***Figure 1. CRPS Map A as it relates to Prebbleton***



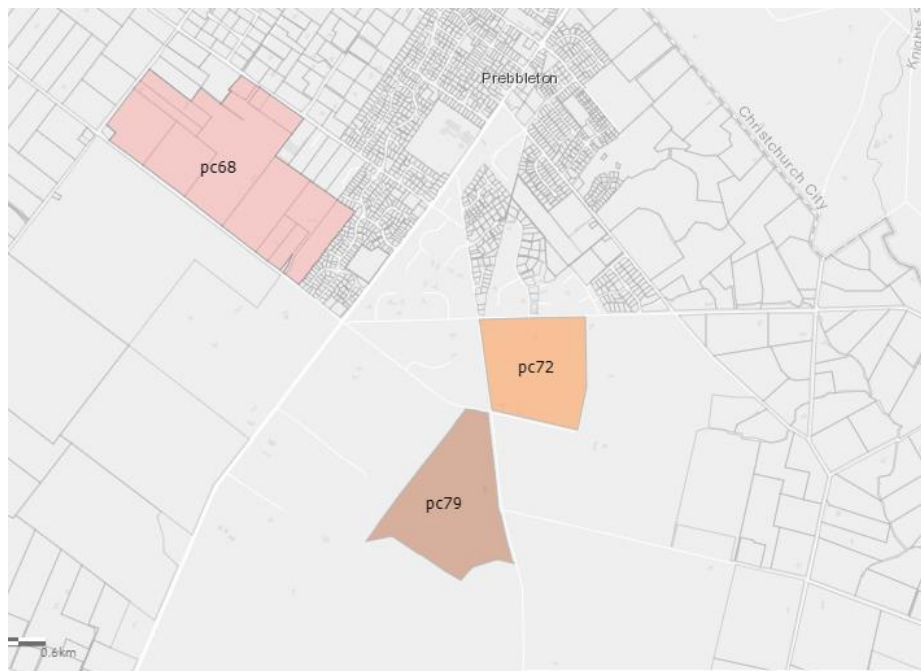
6. Infrastructure has therefore been planned, funded, and is in place to accommodate the growth within the current urban extent as shown in Map A.
7. For additional unanticipated areas outside of Map A, infrastructure capacity is assessed and provided on a 'first come-first served' basis. In addition to the growth areas identified in the current scheme boundary in Map A, and subject to the

<sup>1</sup> CRPS Map A as shown in Figure 9 (p.177) of Mr Cleave's s42a report

localised upgrades identified in my evidence, there is also enough capacity in the conveyancing infrastructure to accommodate the wastewater generated by the two private plan changes that have progressed to a hearing i.e. PC68 and PC72.

8. In terms of PC72 (refer **Figure 2**), I note that since the hearing the Commissioner for PC72 has issued his recommendations to Council<sup>2</sup>. He has recommended that PC72 be granted. At the time of writing, this recommendation has yet to be accepted by Council, however it is understood that Council's standard practice is to accept Commissioner Recommendations. Council decisions are subject to appeal, however the receipt of the recommendation on PC72 means that there is now a higher level of certainty that PC72 will be rezoned.
9. Council is currently processing a third private plan change – PC79. This plan change is currently at the Request for Further Information ('RFI') stage and as such Council has yet to make a resolution as to how to treat the plan change under Clause 25(2)(b). One of the RFI matters is in regards to servicing capacity and any further upgrades to the network necessary to accommodate PC79. Refer **Figure 2** for the relative locations of each of the Plan Change areas.

**Figure 2 – Location of private plan changes in Prebbleton**



<sup>2</sup> [https://www.selwyn.govt.nz/\\_data/assets/pdf\\_file/0008/806930/Recommendation-Report-PC-72-Final.pdf](https://www.selwyn.govt.nz/_data/assets/pdf_file/0008/806930/Recommendation-Report-PC-72-Final.pdf)

10. The Council has assessed the projected peak flow rates expected from the existing urban zoned areas, estimated infill housing development, two new retirement village currently under construction, and the influence of the three proposed plan change areas (PC68, PC72, and PC79). In the event that all three plan changes are approved, and the balance of Prebbleton is developed with modest intensification, the combined population equivalent (PE) for Prebbleton is expected to be in the order of 10,800 PE, with a projected peak wet weather flow rate of approx. 136 l/s. This represents an approximate doubling of Prebbleton's current population equivalents.
11. Due to the Pines WWTP being at a higher elevation than Prebbleton, it is necessary to pump wastewater to the WWTP. The Prebbleton terminal pump station located on Springs Road is capable of pumping at a rate of 101 l/s, without any significant improvements in either the existing Prebbleton terminal pump station or the downstream conveyance network. The existing infrastructure, without any upgrades, is therefore capable of catering for the existing planned developments including modest intensification (the Map A area) and a further 460 households (total) from the three proposed plan change areas. PC72 adds a further 320 households<sup>3</sup>, thereby leaving current capacity at only 140 further households for the PC68 site, if no upgrades are undertaken.
12. As set out in my s42a report, and as confirmed in the evidence of Mr Hall for the applicant, a number of modest upgrades are proposed to the local network and the Terminal Pump Station to enable the additional demand generated by PC68 to be accommodated. The required upgrades are not technically challenging to design or build and in my experience are typical of the localised network upgrades that routinely occur as part of plan changes and subsequent subdivision processes.
13. Provided these pump capacity upgrades are undertaken (when required by new development), the Terminal Pump Station is capable of pumping 135 l/s to 142 l/s to the Pines WWTP using the existing rising main pipework.
14. Design and construction of the proposed conveyance upgrades will be completed

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<sup>3</sup> Noting this is an increase from 295 as notified due to the Commissioner recommendation that the entire PC72 site be zoned Living Z, whereas the preferred option (as notified) included a small strip of low density Living 3 Zone.

ahead of or at the time of the proposed plan change area developments. In the event that PC79 has also been approved, the upgrades signalled in my s42a report will also be capable of accommodating PC79/ 400 households within the 142 l/s capacity.

15. The assessment of available capacity, and additional capacity following modest upgrades, is based on the submitted applications and the number of households nominated being 820 in PC68, 320 in PC72, and 400 in PC79. Any alteration in these quantities (or additional private plan changes being proposed) would result in changes required in the proposed servicing and conveyance.
16. The cost of upgrades become progressively expensive for each additional step in development requiring to be serviced.

### **Planned Upgrades**

17. The following elements are either scheduled improvements or could be scheduled to accommodate the projected flows:
  - Pump and electrical upgrades at the Prebbleton Terminal Pump Station.
  - Design and Construction of the South-East Rolleston Pump Station to accommodate the increased flows.
18. The following elements will be incorporated by the Developers within each of the catchments:
  - Localised conveyancing pipe upgrades to connect their sites to the Prebbleton reticulated network.
  - Localised pump stations on the plan change sites to pump localised wastewater to the Prebbleton Terminal Pump Station. Pump Station storage to be used in the event of a pump station outages and increased storage to buffer future peak flows.
19. Council will continue to assess and review the condition of the existing Prebbleton wastewater network to identify renewals, targeting area of potential stormwater inflow and groundwater infiltration. The Council is taking this action to address/reduce peak flow rates within the existing network and consequently the

available conveyance capacity during peak flow events.

### **Enabling Infrastructure**

20. The Developers of the proposed plan change areas will be required to provide a direct connection to the Prebbleton terminal pump station or contribute towards the upgrade of the existing gravity reticulation network. The size and configuration of the connections will be determined at engineering approvals stage.

### **Resilience and Risk Mitigation**

21. The current pipework between the Prebbleton Terminal Pump Station and the Pines WWTP is not the only wastewater connection available to Prebbleton. Council has retained the previous connection<sup>4</sup> to the Christchurch City Council reticulated network from the minor Springs Road Pump Station as a resilience measure for Prebbleton. While this is not currently used, it has been retained as an emergency measure and is available to buffer peak flows, if required, in the future.
22. Likewise, there remains a pipeline connection from Prebbleton to the Allendale Lane pump station in Lincoln (which then connects from Lincoln to the Pines WWTP). Partial flows from the Prebbleton Terminal pump station or the full catchment flows from a development such as PC68 could be diverted to this pressure main to buffer the peak flows within the catchments. The connection details and configuration would be discussed and agreed at the engineering approvals stage.

### **Summary**

23. There is sufficient existing capacity within the Pines WWTP to treat wastewater from all three private plan changes (and indeed from the wider suite of private plan changes across the Inner Plains).
24. The wastewater conveyancing network between Prebbleton and Rolleston is comprised of pump stations and pipework (with relatively minor upgrades). There is sufficient capacity in the pipework connecting Prebbleton to the Pines WWTP for both Map A growth and the three private plan changes.

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<sup>4</sup> Prior to Pines WWTP being constructed, wastewater from Prebbleton was piped to Christchurch for treatment at the Bromley facility.

25. The current limitation is the capacity of the Prebbleton Terminal Pump Station. This pump station has sufficient existing capacity (101 l/s) to cater for the build-out and gradual infilling of the Prebbleton urban area as shown on Map A, and up to 460 additional households across the three Plan Change areas.
26. Conveyance upgrades are planned or proposed to increase pumping capacity, and develop further existing mitigation measures to address future peak flows within the network.
27. The Terminal Pump Station capacity can be readily increased to 142 l/s through the upgrades outlined in my s42a report. These upgrades will enable wastewater from all three private plan changes to be accommodated at current proposed densities.
28. In the event that the density/ yield of the private plan change areas increases further, or additional private plan changes are sought, then additional upgrades will be required. The cost and design of this infrastructure would be a matter to be explored at the point in the future when the location and yield of any further growth proposals were known.

Murray England

(reviewed by Jonathan Cleese from a planning perspective)

**14 April 2022**